

**Amendments to the specification:**

**Please replace paragraph at Page 4, line 19 with the following amended paragraph:**

As shown in Fig. 3, the PIN photo diode 30 is formed on a n-type InP substrate 31, and includes an n<sup>-</sup>-type InGaAs photo absorption layer 32 grown by epitaxial growth technique on the substrate 31, and an n-type InP cap layer 33 grown by epitaxial growth technique on the photo absorption layer 32. A p-type doped diffusion region 34 is formed in the InP cap layer 33 and a portion of the InGaAs photo absorption layer thereof. A p-type ohmic electrode 35 is formed on the p-type diffusion region 34, and n-type ohmic electrode 36 is formed on a bottom ~~principle~~ principal plane 31A of the InP substrate 31.

**Please replace paragraph at Page 5, line 20 with the following amended paragraph:**

A concavity 41A shaped by a slope is formed on the bottom ~~principle~~ principal plane of the InP substrate 41. An incoming photo signal 1 passes through a side face of the InP substrate 41 in parallel to the bottom ~~principle~~ principal plane, and is reflected toward the photo absorption layer 43 by the slope shaping the concavity 41A. The concavity 41A is covered by a SiN film 41a and an Al reflection film 41b to increase a reflection rate of the concavity 41A. The Al film 41b is protected by a Ti adhesive film 41c and an Au film 41d.

**Please replace paragraph at Page 6, line 19 with the following amended paragraph:**

Furthermore, in case of the conventional PIN photo diodes previously described, the slope which is inclined to the ~~principle~~ principal plane of the substrate is formed by a selective etching process or a dicing process. It is difficult to form an optically flat plane by the selective etching and the dicing. A diffusion loss may be caused by the refraction or the reflection.

**Please replace paragraph at Page 7, line 2 with the following amended paragraph:**

In order to achieve the above objects according to the present invention, a semiconductor photo detecting device, includes a semiconductor substrate having a flat side face, and a photo absorption layer formed on said semiconductor substrate, wherein an entire part of said flat side face is inclined to a line perpendicular to a ~~principle~~ principal plane of said semiconductor substrate, and said flat side face is substantially perpendicular to an incoming photo signal.

**Please replace the paragraph at Page 7, line 12 with the following amended paragraph:**

At least one side face of the semiconductor substrate entirely is inclined to the ~~principle~~ principal plane of the semiconductor substrate. By using the entire side face as an incidental face of an incoming photo signal, the incoming photo signal arrives substantially straight at the photo absorption layer formed on the substrate without refraction or reflection. Because the entire side face of the semiconductor substrate is used as the incidental face of the incoming photo signal, the

incoming photo signal goes straight to the photo absorption region, and therefore, a position of the photo detection region need not be controlled precisely. Manufacturing process of the semiconductor photo detecting device is simplified. By using an inclined substrate as the semiconductor substrate, the flat side face is easily achieved by simple cleavage operation. It is easy to obtain a side face with sufficient optical quality. Since the incoming photo signal passes through the incidental face perpendicularly, the problem of polarization dependency caused by a refraction or reflection is also eliminated.

**Please replace the paragraph at Page 9, line 15 with the following amended paragraph:**

In case of the PIN photo diode 50 as the first embodiment of the present invention, the semi-insulating InP substrate 51 has a ~~principle~~ principal plane inclined to a (100) plane at an angle  $\theta$  of 30° or less, and further has a couple of side faces 51A and 51B, which is (110) plane, parallel to each other. The side faces 51A and 51B is inclined at an angle  $\theta$  of 30° or less to the line perpendicular to substrate ~~principle~~ principal plane.